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18

Abstract

A filter device (10), particularly for use with an agricultural sprayer, comprising a) a casing (15) having a cylindrical wall (14) defining a longitudinal axis (C) of said filter device (10) and having a first end (15'), a second end (15'') opposite said first end (15'), a liquid inlet (20) formed near said first end (15') in said cylindrical wall (14), a first liquid outlet (30) formed near said second end (15'') in said cylindrical wall (14) and a second liquid outlet (40) arranged at said second end (15''), b) a filter element (90) disposed within said casing (15) for filtering a part of said liquid, c) a tubular insert member (80) extending within said filter element (90) along said longitudinal axis (C), said filter device (10) being adapted to set up a helical flow of said liquid along with and around said longitudinal axis (C) between said tubular insert member (80) and said casing (15), said filter element (90) having a filtering medium (F) defining a generally cylindrical wall of said filter element (90), said filter element (90) having a first end (92) and a second end (94) and being open at said first end (92) to allow entry at said first end (92) of said liquid into the interior of said filter element (90), said second outlet (40) communicating with the interior of said filter element (90) for allowing discharge of an unfiltered part of said liquid. The filter element (90) has at least one projection (98) extending inwardly in relation to the contour of said cylindrical wall defined by said filtering medium (F), and the at least one projection (98) having a face (99) extending in the general direction between said first end (92) and said second end (94) of said filter element (90).

25

(fig. 4a)

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